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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,459	10/16/2001	Katsunori Hirase	011386	3658
23850	7590	09/30/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			NATNAEL, PAULO M	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/977,459	<b>Applicant(s)</b> HIRASE ET AL.	
	<b>Examiner</b> Paulos M. Natnael	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on July 30, 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 and 15-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,10 and 11 is/are rejected.
- 7) ☒ Claim(s) 3-5,12-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1,2,10, and 11 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fujimoto**, U.S. Pat. No. **5,912,710** in view **Velez et al.**, US. Patent No. **6,678,006**.

Considering claim **1**, Fujimoto disclose the following claimed subject matter, note;

a) a first image data processing circuit scaling said first image data and thereafter weighting said scaled first image data, is met by Second Scaler 107 and alpha blending 108, Fig.1;

c) a first combining circuit combining said first image data processed by said first Image data processing circuit and said second image data processed by said second image data processing circuit, is met the blending module 56, fig.2;

Except for;

b) a second image data processing circuit weighting said second image data and thereafter scaling said weighted second image data;

Regarding b), Fujimoto discloses 1<sup>st</sup> scaler 106 and the alpha-blending 108 combination. Although Fujimoto does not specifically show the reverse processing method which is well known in the art. In that regard, Velez et al disclose a DVD Video Scaling Module 52 and Blending Module 56 which uses the scaled contrast Value (k) 55 to weight the signal. Velez et al also disclose an alternative version of their invention as shown in the lower part of Fig.2 wherein the decoder 22 is shown to blend the V Scaled YUV 51 signal of the main video data and the sub picture video data 50 and thereafter the scaling module 61 is utilized to scale the combined signal.

It would have been therefore obvious to the skilled in the art at the time the invention was made to modify the system Fujimoto by providing the blending/weighting process first and then scaling the same as shown in fig.2 of Velez et al performing the process for each signal (so that the user has an option of processing the signal either way) in order to minimize noise and signal deterioration that is very crucial in video (DVD as well as TV) processing.

Considering claim 2, the image data output device according to claim 1, wherein a weighting factor used by said first image data processing circuit is scaled according to resolution of an image display unit, is met by the disclosure "The execution contents of the horizontal scaling is determined by a H-CONT value of the scaling parameter

Art Unit: 2614

provided from the control register 314. The H-CONT value of the scaling parameter is determined as a function of both the display aspect ratio and the resolutions for the graphics source. (col. 13, lines 10-22) [emphasis added]

4. Claims **10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto U.S. Pat. No. 5,912,710 further in view **Velez** et al., US. Patent No. 6,678,006 as applied to claims **1 and 2** above, and further in view of Mills, U.S. Pat. No. 5,953,691.

Considering claim **10**,

e) said image data output device including a first image data processing circuit scaling said first image data and thereafter weighting said scaled first image data, a second image data processing circuit weighting said second image data and thereafter scaling said multiplied second image data, and a first combining circuit combining said first image data processed by said first image data processing circuit and said second image data processed by said second image data processing circuit;

Regarding e), see rejection of claim 1.

Except for;

a) a tuner selectively receiving a signal transmitting first image data representing a moving image and second image data representing an image including characters and graphics.

Art Unit: 2614

- b) a separating unit separating the received signal into a signal corresponding to said first image data and a signal corresponding to said second image data.
- c) a decoding unit reproducing said first and second image data from an output of said separating unit.
- d) an image data output device receiving said first and second image data from said decoding unit to output an image signal corresponding to a composite image generated by combining said first and second data.

Regarding a)-d), Fujimoto and Velez et al. as modified above disclose TV(NTSC, PAL) encoder and TV monitor (Fujimoto) and displaying television/video source data on computers (Velez et al). Items a)-d) therefore are well known part of any video or television receiving device, such as the set-top box disclosed by Mills in Figure 1. Therefore, it would have been obvious to those with ordinary skilled in the art at the time the invention was made to modify the system of Fujimoto and Velez et al. as modified above by providing the well-known apparatus of a television receiver, so that the television or video signal is received and displayed properly rendering the references of Fujimoto and Velez et al more versatile.

Considering claim 11, the receiving device according to claim 10, wherein a weighting factor used by said first image data processing circuit is scaled according to resolution of an image display unit.

Regarding claim 11, see rejection of claim 10 as modified above and claim 2.

***Allowable Subject Matter***

5. Claims **6-9** and **15-17** are allowable over the prior art.
6. Claims **3-5** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claims **12-14** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose an image data output device, wherein said first image data processing circuit includes first scaling circuit scaling said first image data and weighting factor multiplier circuit weighting said first image data scaled by said first scaling circuit, said second image data processing circuit includes a second combining circuit receiving said second image data for weighting at least one image data constituting said second image data and combining the weighted image data to generate one composite image data and a second scaling circuit scaling the composite image data generated by said second combining circuit, and said first combining circuit combines the image data supplied from said weighting factor multiplier circuit and the image data supplied from said second scaling circuit, as in claim 3; a plurality of first scaling circuits scaling said first image data according to respective resolutions of said plurality of image display units; a plurality of weighting factor multiplier circuits

Art Unit: 2614

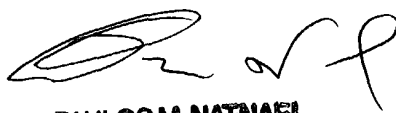
multiplying said first image data scaled by said plurality of first scaling circuits by respective weighting factors; a first combining circuit receiving said second image data for weighting at least one image data constituting said second image data and combining the weighted image data to generate one composite image data; a second scaling circuit scaling the composite image data generated by said first combining circuit according to respective resolutions of said plurality of image display units; and a plurality of second combining circuits combining image data supplied respectively from said plurality of weighting factor multiplier circuits and image data supplied from said second scaling circuit to generate and output composite image data according to respective resolutions of said plurality of image display units, as in claim 6; a plurality of first weighting factor multiplier circuits respectively multiplying, by respective weighting factors, first image data to be output respectively for said plurality of image display units and representing a moving image; a second weighting, factor multiplier circuit multiplying second image data representing an image including characters and graphics by a weighting factor; a scaling circuit scaling the image data supplied from said second weighting factor multiplier circuit according to respective resolutions of said plurality of image display units; and a plurality of combining circuits combining image data supplied respectively from said plurality of first weighting factor multiplier circuits and image data supplied from said scaling circuit to generate and output composite image data according to respective resolutions of said plurality of image display units, as in claims 9 and 15;

Art Unit: 2614

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**PAULOS M. NATNAEL**  
**PATENT EXAMINER**

PMN  
September 20, 2004